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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,933	10/11/2005	Luiz Roberto Martins Miranda	10008.009	6857

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Fildes & Outland, P. C.
Suite 2
20916 Mack Avenue
Grosse Pointe Woods, MI 48236

EXAMINER	
BAREFORD, KATHERINE A	
ART UNIT	PAPER NUMBER
1792	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,933	MIRANDA ET AL.	
	Examiner	Art Unit	
	Katherine A. Bareford	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is generally narrative and indefinite, failing to conform with current U.S. practice. It appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors. For example, the preamble at lines 1-3, "Use of Thermal Spraying with Niobium oxides and Niobium alloys During the Production Process of Rolled Steel Plates." is in quotation marks and ends with a period in the middle of the claim, both of which are improper US format. Furthermore, it is not needed to capitalized the various words in the preamble that are not the beginning of the sentence or normally capitalized. As well, "Characterized by", at line 3, should not be capitalized or underlined.

Claim 1, at line 3, further provides "applying Niobium, . . ." in the body of the claim, but does not provide a positive recitation that "thermal spraying" (as noted in the preamble) is used for the application. Applicant should clarify the claim to indicate that this is the case.

Claim 1, at lines 3-4, provides applying "Niobium, its oxides and alloys such as Ni-Nb, Al-Nb, among others". The wording of the this phrase and the use of the exemplary and alternative terms "such as" and "among others" make the scope of what is actually to be applied unclear. Applicant should clarify the claim to indicate what is required. For the purposes of examination, the Examiner understands the claim to allow for the application of either niobium, niobium oxide, or niobium alloy, or any combination of these materials.

Claims 1, at lines 3-5, provides "applying Niobium . . . in the production of coated steel plates", however, this phrase does not clarify whether the niobium material is applied to the steel plates to form the coating or whether a different coating is provided. Applicant should clarify the claim to indicate what is required. For the purposes of examination, the Examiner understands the claim to provide for the application of the niobium material onto steel plates.

Claim 1, at line 5, provides production of "coated steel plates", but does not provide a positive recitation that steel plates that are "rolled" (as noted in the preamble) are used. Applicant should clarify the claim to indicate that this is the case.

Due to the overall indefiniteness of the claim as discussed above, the actual requirements of the claim are very unclear, and for the purpose of actually examining the case, the Examiner points out that she is interpreting the language in the claim to require a process where a niobium material, in the form of niobium or niobium oxide

or niobium alloy or any combination of these three, is thermally sprayed onto a rolled steel plate to form a coated rolled steel plate.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4 of copending Application No. 10/525,366 in view of Suzuki et al (US5330850).

The claims of 10/525,366, although in unclear form, indicate thermal spraying niobium and niobium alloys to use as an anticorrosive coating (claims 1, 4), but do not teach that the substrate to which the coating is provided is rolled steel plates. However,

Suzuki teaches that it is well known to desire to provide corrosion resistant (anticorrosive) coatings to rolled steel sheets (plates). Column 1, lines 10-15 and column 4, lines 30-35. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify 10/525,366 to apply the anticorrosive niobium coating to rolled steel plates as suggested by Suzuki in order to protect the steel plates, because 10/525,366 teaches a method of applying an anticorrosive coating, and Suzuki teaches a substrate on which such an anticorrosive coating is desired.

This is a provisional obviousness-type double patenting rejection.

5. The Examiner notes that the US Publication for 10/525,366 is Miranda et al (US 2006/0127577).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (US 5330850).

Suzuki teaches a method of providing a surface coated steel sheet (plate). Column 3, lines 30-35. The steel sheet is usually a cold-rolled steel sheet. Column 4, lines 30-35. The steel sheet has a zinc alloy plating layer (layer 2) with nickel or cobalt, that may contain an alloying element of Nb (niobium), thus providing a niobium alloy (Zn-Ni-Nb or Zn-Co-Nb) layer. Column 4, lines 35-45 and column 6, lines 50-65. The application of the zinc alloy plating layer can be flame spraying (a type of thermal spraying process). Column 6, lines 65-68.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longo (US 3313633).

Longo teaches a flame spraying (a type of thermal spraying) process. column 3, lines 45-60. The substrate can be a steel surface, including steel plate. Column 3, lines 70-75 and column 4, lines 50-55. The substrate can also be rolled steel. Column 4, lines 10-15 and column 5, lines 55-65. The material applied can include columbium (another name for niobium) and its alloys. Column 2, lines 15-25 and column 3, lines 1-10.

Longo teaches all the features of these claims except that the steel plate is specifically rolled steel plate.

It is the Examiner's position, however, that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Longo to use rolled steel plate with an expectation of producing a desirable product, because Longo teaches to coat steel plate and to coat rolled steel, and therefore one of ordinary skill in the art would expect that steel that was both rolled and in plate form would be desirably coated by the process, as the process can desirably coat both steel in plate form and steel in rolled form.

11. The Examiner notes that on the PTO-892 Longo appears as "NICHOLAS LONGO FRANK".

12. Sanborn et al (US 4571983) teaches that steel can be coated by plasma spraying (a form of thermal spraying) columbium (another name for niobium) and that oxides of the material will also be formed on the steel coated with this material. See column 2, lines 35-68 and column 3, lines 40-55.

Wolfla (US 3864093) teaches plasma spraying (a form of thermal spraying) niobium oxide onto substrates that can be steel. Column 3, lines 15-20 and column 13, line 60 through column 4, line 20.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katherine A. Bareford/
Primary Examiner, Art Unit 1792